

Polygonum hickmanii (Polygonaceae), a New Species from California

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ABSTRACT. A new endemic species of *Polygonum* is described from Scotts Valley, California. Differentiation from closely related taxa *P. parryi* and *P. heterosepalum* is presented.

Polygonum (sect. *Duravia*) ***hickmanii*** H. R. Hinds & R. Morgan, sp. nov. TYPE: U.S.A. California: Santa Cruz County, Scotts Valley, grassland N of Navarra Drive, W of Carbonero Creek, 1 July 1993, R. Morgan 2119 (holotype, CAS; isotypes, MO, RSA, UC, UNB). Hickman's knotweed.

Herba annua. Folia sessilia, 0.5–3.5 cm × 1–1.5 mm, revoluta. Ocrea divisa ad basem in longas rectas fibras. Flores singuli in axillis omnium paene bracteorum foliorum. Achenia laevia, (2–)2.3 × 1.6 mm, duobus lateribus concavis et uno latere latiore planioreque.

Erect taprooted annual, 2–5 cm, simple in depauperate plants to profusely branched from near the base. Leaves sessile, linear, acuminate, mucronate, 0.5–3.5 cm × 1–1.5 mm, revolute and wing-nerved below, closely investing and with the ocreae ± concealing the stems. Ocrea 6 mm long, silvery, divided nearly to base into long straight filaments, adnate to the base of the leaves and appearing almost as long as the apical leaves. Flowers single in axils of almost all bracteal leaves, tepals white, with two outer tepals cucullate and mucronate, 3 mm long, three inner tepals rounded to obtuse 2 mm long, anthers conspicuous, orange-pink 0.4 mm. Achenes smooth, (2–)2.3 × 1.6 mm, light to dark olive brown, lighter on the angles, with two concave sides and one broader ± flat side; not exserted. Styles 0.3 mm, persistent. Flowering from late May to August (October).

Polygonum hickmanii is known from two sites about one mile apart, at the northern end of Scotts Valley, Santa Cruz County, California, at about 700–800 feet elevation and occurs only in very restricted microhabitats within an isolated relictual grassland. The sites are gently sloping to nearly level, with fine-textured shallow soil over outcrops of Santa Cruz mudstone and Purisima sandstone, sparsely vegetated with small annual herbs. This habitat is shared with a more abundant but equally narrow endemic, *Chorizanthe robusta* C. Parry var. *hartwegii* (Bentham) J. Reveal & R. Morgan. The population of *Polygonum hickmanii* fluctuated from about 200 to 400 plants in 1990–1992 to 1000 or more in 1993 following a relatively wet winter.

Polygonum hickmanii is sympatric with no other members of the section *Duravia*. The nearest location of a closely related species, *P. parryi* Greene (itself disjunct), is at Mt. Hamilton about 50 miles inland.

Polygonum hickmanii differs from *P. parryi* in its larger white flowers, longer leaves, larger anthers and achenes, and longer, straight ocreae. It differs from *P. heterosepalum* M. E. Peck & Ownbey in achene shape (more rounded at base as opposed to more tapering), size (1.5–2 mm), and flower structure (perianth segments very unequal).

Polygonum hickmanii is named for James C. Hickman (1941–1993), distinguished botanist, who confirmed the uniqueness of this taxon and whose advice and inspiration is here acknowledged.

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